

REMARKS

Claims 2-26 are currently pending, wherein claims 2-4 and 9-15 have been withdrawn from consideration, and claims 18, 19, 21, and 22 have been amended to correct typographical errors. Applicants respectfully request favorable reconsideration in view of the remarks presented herein below.

In paragraph 3 of the Office action ("Action"), the Examiner rejects claims 18-23 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicants hereby amend claims 18, 19, 21, and 22 to address the Examiner's concerns. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 18-23 under 35 U.S.C. § 112, second paragraph.

In paragraph 5 of the Action, the Examiner rejects claims 16, 17, and 24 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,459,811 to Hurst, Jr. ("Hurst"). Applicants respectfully traverse this rejection.

In order to support a rejection under 35 U.S.C. § 102, the cited reference must teach each and every claimed element. In the present case, claims 16, 17, and 24 are not anticipated by Hurst because Hurst fails to disclose each and every claimed element as discussed below.

Independent claim 16 defines an image coding method for coding a motion image signal and outputting the coded data as a bit stream. The method includes, *inter alia*, processing an input motion image signal to reduce the amount of coded data when coding the motion image signal using a coding method in which it is prescribed that the frame rate of a motion image signal is a constant level to be output at its decoding time; outputting the processed motion image

signal together with process information indicating details of said processing; and coding the processed motion image signal in conformity with said coding method on the basis of said process information.

Hurst discloses a data transmission system that includes an encoder for providing a bitstream having a sequence of frame segments, each frame segment having a bit size which is limited to a maximum bit size; a transmission channel with a channel rate sufficient to transmit a frame segment within a frame interval; and a burst transmitter that receives the bitstream from the encoder and transmits each consecutive frame segment, at regular frame intervals to provide a bursty bitstream over the transmission channel.

In rejecting claim 16, the Examiner asserts that Hurst anticipates the method of claim 16 because Hurst discloses encoding video frame data at a constant frame rate. To support this assertion, the Examiner points to various lines within column 7 of Hurst. However, nowhere in column 7, or elsewhere in Hurst, is there any disclosure of processing the video frame data to reduce the amount of coded data; outputting process information indicating details of the processing; and then coding the processed data based on the process information as claimed. Accordingly, independent claim 16 is patentable over Hurst because Hurst fails to disclose each and every claimed element.

Furthermore, should the Examiner maintain this rejection in a further action, the Examiner is request to point out by column and line number where Hurst discloses “outputting process information indicating details of said processing” as claimed, in order to provide Applicants sufficient information from which to respond.

Independent claim 17 defines an image coding device for coding a motion image signal and outputting the thus coded data as a bitstream. The device includes, *inter alia*, an input controller which, in the case where the motion image signal is of the interlace mode, equalizes two fields of each frame at a predetermined rate, and outputs the thus processed motion image signal; and an image coder that codes the motion image signal processed at said input image controller by a decoding method which is in conformity with a method that is designed for outputting a motion image signal at a constant frame rate.

In rejecting claim 17, the Examiner again points to column 7 of Hurst as disclosing an image coding device as claimed. However, although column 7 of Hurst discloses that the video frame data is decoded at a constant frame rate, nowhere in Hurst is there any disclosure of equalizing two fields of each frame at a predetermined rate if the motion image signal is in interlace mode. Accordingly, claim 17 is patentable over Hurst because Hurst fails to disclose each and every claimed element.

Claim 24 depends from independent claim 17. Therefore, claim 24 is patentable over Hurst for at least those reasons presented above with respect to claim 17. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 16, 17, and 24 under 35 U.S.C. § 102(e).

In paragraph 7 of the Action, the Examiner rejects claims 5-8 and 22-26 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hurst in view of U.S. Patent No. 6,535,558 to Suzuki et al. ("Suzuki"). Applicants respectfully traverse this rejection.

In order to support a rejection under 35 U.S.C. § 103, the Examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some motivation to combine the cited references. Second, there must be a reasonable expectation of success. Finally, the combination must teach each and every claimed element. In the present case, claims 5-8 and 22-26 are patentable over the combination of Hurst and Suzuki because the Examiner fails to establish a *prima facie* case of obviousness as discussed below.

Independent claim 5 defines an image coding device for coding a motion image signal, and outputting the coded data as a bit stream. The device includes, *inter alia*, an input image controller that executes a predetermined processing to an input motion image signal.... In addition, the image controller excludes either one field of each of the frames at a predetermined rate when the input motion image signal is of the interlace method, and outputs the processed motion image signal, together with the process information showing the thus excluded fields.

In rejecting claim 5, the Examiner asserts that it would have been obvious to one skilled in the art to incorporate Suzuki's "use of excluded image information into the Hurst apparatus by using the exclusion property on Hurst's disclosed interlaced processing in order to have the Hurst apparatus provide for more efficient spatial and temporal scalability with coded image signals." This assertion is unfounded for the following reasons.

First, the mere fact that reference may be combined does not in and of itself render the resultant combination obvious absent some objective motivation to combine the cited references. In the present case, the Examiner asserts it would have been obvious to modify Hurst to include

the “use of excluded image information” as allegedly disclosed by Suzuki in order to provide for more efficient spatial and temporal scalability. However, there is no evidence provided to support that the suggest modification would indeed provide for more efficient spatial and temporal scalability. In fact, Suzuki explicitly discloses that it is the separate hierarchy structure of Suzuki that realizes the more efficient spatial and temporal scalability, not the “zero macro-block” as asserted by the Examiner. Accordingly, absent some objective motivation to combine Hurst and Suzuki, the rejection of claim 5 is improper.

Furthermore, even if, *arguendo*, one skilled in the art were motivated to combine Hurst and Suzuki, the combination would still fail to render claim 5 unpatentable because the combination fails to disclose each and every claimed element. As discussed above with respect to claim 17, Hurst fails to disclose or suggest an image controller that outputs a processed motion image signal together with process information indicating details of the processing. In addition, nowhere in Hurst is there any disclosure or suggestion of excluding one *field* of an *interlaced* image signal and performing *predictive* coding on the remaining fields as claimed.

Although Suzuki may disclose that macro-blocks that have a zero vector and quantized DCT coefficients equal to zero are treated as skip macro-block, nowhere in Suzuki is there any disclosure or suggestion of excluding one *field* of an *interlaced* image signal and performing *predictive* coding on the remaining fields as claimed. Since Hurst and Suzuki both fail to disclose or suggest an image coding device that includes an image controller that excludes one *field* of an *interlaced* image signal and performing *predictive* coding on the remaining fields as claimed, the combination of these two references cannot possibly disclose said element.

Therefore, even if one skilled in the art were motivated to combine Hurst and Suzuki, which Applicants do not concede, the combination would still fail to render claim 5 unpatentable because the combination fails to disclose each and every claimed element.

Independent claims 6, 7, and 8 each define an image coding device that includes, among other elements, an input image controller that excludes one field of each of the frames at a predetermined rate when the input motion image signal is of the *interlace* method, and outputs the processed motion image signal, together with the process information showing the thus excluded fields. Accordingly, claims 6, 7, and 8 are not rendered unpatentable over the combination of Hurst and Suzuki because the Examiner fails to establish a *prima facie* case of obviousness as discussed above with respect to claim 5.

Claims 22-26 variously dependent from independent claims 16 and 17. Therefore, claims 22-26 are patentable over Hurst for at least those reasons presented above with respect to claims 16 and 17.

Although Suzuki may disclose that macro-blocks that have a zero vector and quantized DCT coefficients equal to zero are treated as skip macro-blocks, nowhere in Suzuki is there any disclosure or suggestion of outputting process information indicating details of the processing, and then coding the processed data based on the process information as claimed. Since Hurst and Suzuki each fail to disclose or suggest an image coding device or method that includes outputting process information indicating details of the processing as claimed, the combination of these two references cannot possibly disclose or suggest said element. Therefore, even if one skilled in the art were motivated to combine Hurst and Suzuki, which Applicants do not concede,

the combination would still fail to render claims 22-26 unpatentable because the combination fails to disclose each and every claimed element. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 5-8 and 22-26 under 35 U.S.C. § 103(a).

The application is in condition for allowance. Notice of same is earnestly solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Penny Caudle (Reg. No. 46,607) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By Penny Caudle Penny Caudle
for D. Richard Anderson Reg. No. 46,607
Registration No.: 40,439
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicants